Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 1-16 stand rejected under 35 U.S.C. §112, second paragraph.

Claims 1-16 stand rejected under 35 U.S.C. §112, first paragraph.

Claims 1-16 stand rejected under 35 U.S.C. §101.

Claim 1 stands rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,561,431 of *Peele et al.* (*"Peele"*).

The Examiner has objected to the specification. The Examiner has stated that the specification does not identify a methodology for a distance calculation. The Examiner has also stated that the specification would require one of ordinary skill in the art to engage in undue experimentation to establish a methodology, determine separate and independent sets of categories by a classifier and an authoritative classifier, and then determine a degree of correctness based on distance.

37 CFR §1.71 requires that the specification set forth a written description of the invention sought. Applicant submits that the invention sought and claimed in amended claim 1 and claims 2-16 does not include performing a distance calculation or determining separate and independent sets of categories by a classifier and an authoritative classifier or determining a degree of correctness based on distance. Therefore, applicant submits that the specification is not required to provide descriptions of performing a distance calculation or determining separate and independent sets of categories by a classifier and an authoritative classifier or determining a degree of correctness based on distance. Amended claim 1 recites the step of "determining an accuracy measure which indicates a degree of correctness of the classifier in classifying an item" and Applicant's specification provides

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ample description of determining an accuracy measure. (See Figure 3 of Applicant's specification and accompanying text).

The Examiner has rejected claims 1-16 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention. The Examiner has stated that the invention "focuses" on the use of an authoritative classifier that may be a human expert and that the claims are therefore indefinite because the classifications performed by different human experts could differ.

Applicant respectfully submits that the invention as claimed in amended claim 1 and claims 2-16 does not "focus" on the classifications performed by an authoritative classifier. Amended claim 1 and claims 2-16 do not include any language for performing classifications. Instead, claims 1-16 recite method steps for determining an accuracy measure for a classifier in response to a set of categories selected by the classifier and a set of categories selected by an authoritative classifier.

The Examiner has rejected claims 1-16 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner has stated that the invention focuses on the use of authoritative classifier 14 and that the specification does not disclose how to implement the authoritative classifier 14. Applicant respectfully submits that the invention as claimed in amended claim 1 and claims 2-16 is not directed to an authoritative classifier. Instead, claims 1-16 are directed to determining an accuracy measure for a classifier in response to a set of categories selected by the classifier and a set of categories selected by an authoritative classifier. Claims 1-16 do not include any language pertaining to the operation of an authoritative classifier which would require description in the specification. The classification steps performed by the authoritative classifier are outside of the scope of claims 1-

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16.

The Examiner has rejected claims 1-16 under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Examiner has stated that claims 1-16 represent abstract methodology with human being processing. The Examiner has stated that from one human expert to another classifications would be different and that the claims therefore lack concreteness. Applicant submits that the human being processing to which the Examiner refers is classifications performed by a human expert.

Applicant respectfully submits that amended claim 1 and claims 2-16 do not include classification steps performed by human experts. Instead, claims 1-16 are directed to determining an accuracy measure for a classifier in response to a set of categories selected by the classifier and a set of categories selected by an authoritative classifier. The classification methodology performed by the authoritative classifier and the classifier being evaluated are outside of the scope of claims 1-16. Furthermore, applicant's specification sets forth numerous practical applications of a method for determining an accuracy measure according to claims 1-16, e.g. designing a classifier, training a classifier, evaluating/improving system models, comparing the performance of different classifiers, etc.

The Examiner has rejected claim 1 under 35 U.S.C. §102(b) as being unpatentable over *Peele*. Applicant submits that amended claim 1 is not anticipated by *Peele*. Amended claims 1 is a method for determining accuracy of a classifier that includes determining an accuracy measure which indicates a degree of correctness in classifying an item in response to a set of categories selected by the classifier and a set of categories selected by an authoritative classifier. *Peele* does not disclose determining an accuracy measure in response categories selected by an authoritative classifier as claimed in amended claim 1. Instead, *Peele* discloses a classifier that

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determines a confidence measure in response to the classification computations generated by the classifier for selected and unselected classes. (*Peele*, col. 8, lines 53-60). For example, *Peele* teaches that

> A suitable level of confidence may be generated for each classifier by determining the difference $CL_{chosen}-CL_{other}$, where CL_{chosen} refers to the classifiers's <u>computed value for the selected class</u>, and CL_{other} is the <u>computed value for the non-selected class</u>.

(*Peele*, col. 8, lines 56-60). In contrast to computing a confidence level in response to classifier values for selected and non-selected classes as taught by *Peele*, an accuracy measure according to amended claim 1 is based on a set of categories selected by the classifier being evaluated and a set of categories selected by an authoritative classifier.

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 08-2025 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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